

REMARKS

Examiner Pompey is to be thanked for careful review of the pending application.

Favorable reconsideration of this application in light of the above amendments and the following remarks is respectfully requested.

Claims 1, 3-6, and 8-10 remain in this application. Claim 6 is amended herein. No claims have been allowed.

Claim Rejections - 35 U.S.C. § 112

2. The Examiner has rejected Claims 1-10 under 35 U.S.C. §112; first paragraph, because the specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with the claims. Applicant acknowledges the Examiner's position that there appear to be two oxidation temperatures mentioned in the specification and in the claims. The specification says that an optional additional second oxidation step may be performed at a temperature at or below 1100 degrees centigrade if additional thickness of silicon oxide is desired, after the claimed first oxidation step performed at an oxidation temperature of at least above 1100 degrees is employed to form the silicon oxide layer with minimal formation of silicon oxynitride inclusions therein.

In response, applicant has amended claim 6 to remove the ambiguity concerning the oxidation temperature, which applicant claims and regards as his invention.

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In light of the foregoing response, applicant respectfully requests that the Examiner's rejection under 35 U.S.C §112; first paragraph, of applicant's claims 1-10 to applicant's invention be withdrawn.

Other Considerations

No fee is due as a result of this amendment.

SUMMARY

Applicant's invention, as claimed within amended Claim 1, twice amended claim 6, and claims 3-5 and 8-10, is directed toward a method for forming within a silicon semiconductor substrate employed within a microelectronics fabrication a silicon oxide dielectric layer employed as a field oxide (FOX) isolation layer by local dry thermal oxidation of the silicon substrate. In conjunction with applicant's amended claim 1 and twice amended claim 6, the prior art of record employed in rejection of applicant's claims to applicant's invention neither claims singly nor in combination each and every limitation within applicants amended claim 1, twice amended claim 6, or in the original claims 3-5 and 8-10.

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CONCLUSION

On the basis of the above amendments and remarks, reconsideration of this application, and its early allowance, is respectfully requested.

Any inquiries relating to this or earlier communications pertaining to this application may be directed to the undersigned attorney at 914-452-5863 or Mr. George Saile, Esq. (Reg. No. 19,572) at 914-452-5863, at the Examiner's convenience.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'SBA', with a long horizontal flourish extending to the right.

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims

Claim 6 is amended as follows:

6. (TWICE AMENDED) A method for forming within a silicon semiconductor substrate employed within an integrated circuit microelectronics fabrication a silicon oxide dielectric field oxide (FOX) isolation layer comprising:

providing a silicon semiconductor substrate;

forming upon the silicon semiconductor substrate a silicon oxide pad oxide layer;

forming upon the silicon oxide pad oxide layer a patterned silicon nitride mask layer; and

oxidizing the silicon substrate locally at a first oxidation temperature of at least above 1100 degrees centigrade through the patterned silicon nitride mask layer to form silicon oxide dielectric field oxide (FOX) isolation layers to prevent out-diffusion of nitrogen species and minimize formation of silicon oxynitride inclusions within the silicon oxide layers . [; and]

[oxidizing the silicon substrate further at a second temperature no greater than 1100 degrees centigrade.]